Acta Arachnologica, 58(1): 5–6, September 30, 2009

[Short Communication]

A new species of oribatid mite (Acari: Phthiracaridae) from a virgin forest of Okinawa

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Abstract — A new species of oribatid mite belonging to the family Phthiracaridae was found from litter sample taken in a virgin forest of Okinawa Island, Japan. The new species, *Hoplophthiracarus kawanoi*, is readily distinguishable from the known congeners by the two pairs of strong carinae on prodorsum.

Key words — oribatid mite, *Hoplophthiracarus*, new species, Okinawa

Yambaru, a local name of the northern montane area of Okinawa Island, reminds us of the most precious area of nature conservation in Okinawa. However, the area has largely been deforested recently, affecting many endangered plants and animals. The forest of Iyegawa is also one of the most precious areas in Yambaru, covered by excellent virgin forest, which has been planned to be deforested for road construction.

In the forest survey made by th author and the members of CONFE, the Conservation Network for Forest Ecosystem in Japan directed by Prof. Emeritus Shoichi Kawano of Kyoto University, the author collected an unknown species of oribatid mite, which is described below as a new species. The species has never been found outside the forest of Iyegawa, though intensive surveys were done in Okinawa Island.

Hoplophthiracarus kawanoi sp. nov.
[The Japanese name: Kawano-ireko-dani]
(Figs. 1–3)

Measurement. Length of aspis 300 (paratype)–310 (holotype) μm, length of notogaster 590 (paratype)–600 (holotype) μm, height of notogaster (holotype) 400 μm.

Aspis (paratype). Elongate oval, 1.36 times as long the width; posterior margin strongly arched. Two pairs of conspicuous thick ridges reaching close to anterior margin of aspis, showing irregular dorsal margin. Interlamellar seta erect, thick and very long; rostral seta thick and short; lamellar seta very short. Sensillus slender, weakly thickened at tip, provided with barbs. Foveolation of surface distinct behind interlamellar setae and indistinct in front of the setae.

Notogaster (holotype). Strongly swollen dorsally. Fifteen pairs of notogastral setae rather thick, bent forward and minutely barbed distally. Surface densely covered with small, round foveolae.

Anogenital region (paratype). Genital aperture rectangular, a little narrowed posteriorly, wider and shorter than anal aperture. Four pairs of genital setae inserted with wide interspace and 5 pairs of minute setae inserted close together near anterior margin. Anal aperture shield-shaped, 1.2 times as long as the width. Interlocking apparatus concave on anterior margin to accept posterior projections of genital plates. Setae an_1, an_2 and ad_1 same in length and evenly spaced; setae ad_2 thick and very long, inserted between an_1 and an_2.

Type series. Holotype (NSMT-Ac 13543) and 1 paratype (NSMT-Ac 13544): Iyegawa in Kunigami-son, Okinawa Island, 25-I-2009. J. Aoki. From litter under the forest of *Quercus miyagii* Koidz. and *Castanopsis cuspidata* Schottky var. *sieboldii* Nakai. Type specimens are deposited in the National Museum of Nature and Science, Tokyo.

Etymology. The specific name is dedicated to Dr. Shoichi Kawano, the leader of CONFE, who is conducting the surveys of natural forests in Hokkaido and Okinawa.

Remarks. The genus *Hoplophthiracarus* contains more than 30 species in the world (Subias, 2002), but none of them has two pairs of conspicuous prodorsal ridges found in the new species. Two species, *H. kugohi* Aoki, 1959 and *H. foveolatus* Aoki, 1980, have been known from Japan. These species are readily distinguishable from the new species by having only one pair of weak prodorsal ridges (in *H. kugohi*) and no prodorsal ridges (in *H. foveolatus*).

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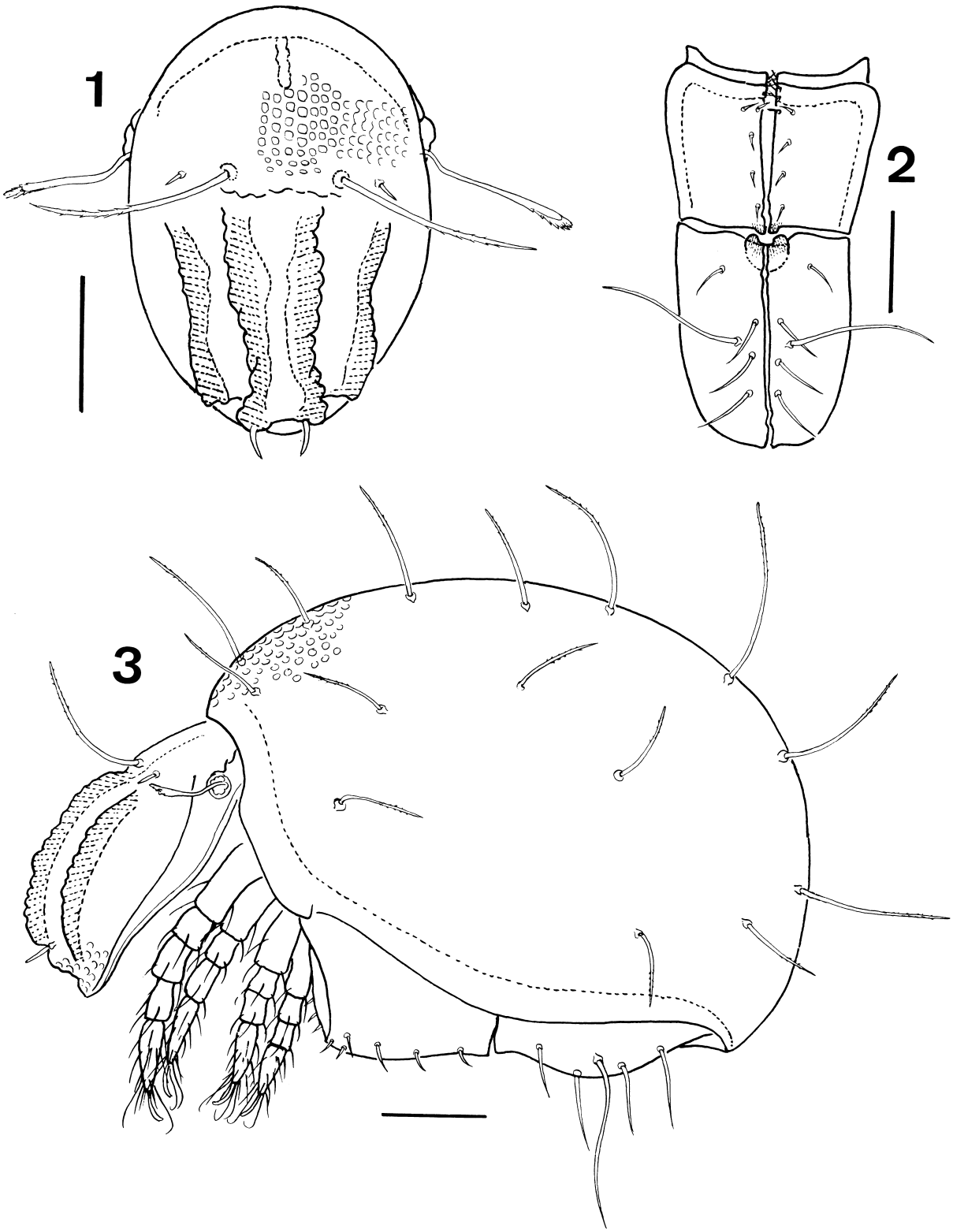
Received February 16, 2009 / Accepted March 16, 2009



Figs. 1–3. *Hoplophthiracarus kawanoi* sp. nov. — 1, aspis (paratype); 2, anogenital region (paratype); 3, lateral view of animal (holotype). (Scale bars: 0.1 mm)